#### **PLATO Society**

Taking Stock: the Paris Climate
Agreement Conference of the
Parties in Dubai, December, 2023
January 19-February 16, 2024
Peter Krug

Second Meeting: 1/26/2024

#### **Tentative Course Outline**

- Week 1 (Jan. 19<sup>th</sup>)): Paris Climate System; COP28 introduction
- Week 2 (Jan. 26<sup>th</sup>): COP28 and mitigation
- Week 3 (Feb. 2<sup>nd</sup>): COP28 and adaptation
- Week 4 (Feb. 9<sup>th</sup>): COP28 and means of support for implementation
- Week 5 (Feb. 16<sup>th</sup>): Prospects for effective implementation of COP28

#### Today's Meeting

Week One summary

Mitigation in the COP28 Decision

#### Week One Summary

1. The Paris Climate System

- 2. The 2023 Dubai Conference (COP28)
  - The COP28 "Decision"

# The Multilateral Paris Climate System

- 1. Two-tiered structure
  - A. International tier (197 Parties): collective responsibilities and rules
    - Sources of the rules: treaties (UNFCCC, 1992; Paris Climate Agreement, 2015); and COPs (Conferences of the Parties)
  - B. National tier: the individual Parties (sovereign states), choosing their own policies and actions
    - Responsible for implementation measures

# The Parties' Policies and Actions

- All Parties are required to contribute with increasing ambition toward fulfillment of the System's goals, but all my choose their own means of doing so.
- Recognition of differentiation among the Parties, including developed and developing countries.
  - The principle of "common but differentiated responsibilities and respective capacities"

### Climate Science: Implications for Governance

- Global coordination essential: GHG's do not know political boundaries
  - Even dramatic emissions reductions in any one country won't solve the problem.
- Urgency: GHG's, especially carbon dioxide, have long atmospheric residencies.
  - because they are cumulative, the situation is increasingly urgent
  - Why the rising level of ppm's is such an important indicator
  - Earth is using up its "carbon budget"

### The Enforcement Question in International Law

- Countries are very protective of their national sovereignty (exclusive control over territory within their borders)
- Therefore, generally very resistant to placing coercive enforcement measures in treaties
- In lieu of coercive enforcement: monitoring, peer pressure, persuasion, reciprocity (built on trust)

## International Tier: Governance Principles

- Breadth of participation over stringent rules (promotes compromise)
- Managerial over enforcement model
- Identification of specific action policies: bottom-up over top-down

### Current Operation of the Bottom-Up Approach

- Parties required to submit "nationally determined contributions" (NDC's) on a periodic basis
- A "ratcheting" approach: each successive submission to include "highest possible ambition"

#### The COP as an Institution

- A negotiating forum: delegations from all Parties
- The final outcome: a conference "Decision"
  - Decided on basis of "consensus"
    - ■Procedure whereby a conference takes a decision in the absence of a vote
    - ■COP President concludes negotiations by recognizing existence of agreement among the Party delegations

#### Purposes of COP Decisions

 Review on-going implementation of the System's treaties and prior COP Decisions; and

 Adopt rules deemed necessary to promote effective implementation of the treaties and Decisions

### Why so much Attention to COPs and Their Decisions?

- A COP's Decision is given widespread publicity around the world
- Widespread awareness of temperature goals and targets (such as "net zero")
  - Alliant Energy announcement about new Beaver Dam solar farm and eleven other recent solar projects in Wisconsin: "a major step toward meeting Alliant Energy's goal of achieving net-zero greenhouse gas emissions from utility operations by 2050" (Wis. State Journal, 1/20/2024)

### Why Attention to COP Decisions? (continuing)

- Signals of probable governmental action to national and sub-national governments, NGO's, the private sector (businesses and investors)
  - Davos World Economic Forum:
     "Executives in finance and industry spoke positively about financial opportunities in the climate transition, including electric vehicles and and lending to decarbonization projects." (NY Times, 1/22/2024)

### COP28: the First "Global Stocktake"

- The "Global Stocktake": a requirement in the Paris Agreement
  - Intense, two-year process
    - A "report card": Status report and prescriptions for Parties' implementation steps going forward
    - Based on contributions from hundreds of governments, scientists, and civil society groups from around the world

#### Global Stocktake (continuing)

- Was the central outcome of COP28
- Paris Climate Agreement, Article 14.3:
  The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action.

#### The COP28 Decision Itself

- Title: "Outcome of the First Global Stocktake"
- Detailed: Preamble plus 196 numbered sections
- Divided into sections ("Cross-cutting", mitigation, adaptation, support, and others)

#### Today's Topic: the COP28 Decision and Mitigation

- 1. Status of the climate
- 2. Paris System progress report
- 3. COP28 roadmap for accelerated Party action:
  - A. Enabling conditions
  - B. Greenhouse gas emissions reductions
    - (1) In nature
    - (2) Energy systems transition

#### **Status of the Climate**

- Global warming continues to increase
  - 2023 set to be the warmest year on record
- Impacts from climate change are rapidly accelerating
- "Urgent" action needed to to keep the Paris Agreement temperature goals within reach and to address the climate crisis in this "critical decade"

# The Paris Climate System: Progress Report

- 1. Significant collective progress towards the Paris Agreement temperature goal has been made.
  - The Paris Agreement long-term temperature goal is to hold the increase in the global average temperature to well below 2° C (3.6 F) above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5° C (2.7 F) above pre-industrial levels

#### Progress Report (continuing)

- Prior to adoption of the Agreement (2015), some projections predicted an increase in the global average temperature of 4 degrees Celsius (roughly 7.2 Fahrenheit). Now, if the Parties fully implement their latest plans, the range is expected to be 2.1–2.8 degrees C (3.8-5.04 F)
- All Parties have communicated nationally determined contributions (NDC's) that demonstrate progress toward achieving the Paris Agreement temperature goal

#### Progress Report (continuing)

- 2. However, despite this progress, the Paris Parties are not collectively on track toward achieving the purpose of the Paris Agreement and its long-term goals.
- Significantly greater emission reductions are required to align with global greenhouse gas emission trajectories in line with the temperature goal of the Paris Agreement
  - An urgent need to address this gap

#### Progress Report (continuing)

- 3. The Decision re-affirms the Paris long-term temperature goals and states that alignment with them would significantly reduce the risks and impacts of climate change
- In other words, the goals continue to be realistic.
  - A current matter of debate among climate scientists
- 4. But the Parties must accelerate their actions: "a rapidly narrowing window"

#### Finance and Technology Available for Accelerated Action

■ Feasible, effective and low-cost mitigation options are available to keep the temperature goals within reach in this critical decade with the necessary cooperation on technologies and support

#### Sufficient Global Capital

- There is sufficient global capital
  - However, there are barriers to redirecting capital to climate action
  - Governments through public funding and clear signals to investors are key in reducing these barriers
  - Investors, central banks and financial regulators can also play their part

## Effective Technologies Available

- Over the past decade, mitigation technologies have become increasingly available
- Costs of several low-emission technologies, notably wind power and solar power, have fallen continuously
- But still a need to increase the affordability and accessibility of such technologies

# The COP28 Mitigation Roadmap

- So, in sum, Parties must step up their implementation measures
  - There is sufficient global capital, and lowcost technologies are available
- What, then, must Parties do to place the System in alignment with its temperature goals and targets?
- Recurring citations of the "common but differentiated responsibilities and respective capacities" principle

# The Roadmap has two primary elements

Creation and embedding of enabling conditions for effective mitigation measures

Reduction of greenhouse gas (GHG) emissions

## Embedding of Enabling Conditions

- Parties must strengthen "integrated, holistic approaches" to promote eradication of poverty, sustainable development, and protection of natural resources and ecological systems.
- Encompasses: (1) support for developing countries; (2) sustainable development; (3) conservation; and (4) just transition(s)
  - Tenets from the international environmental movement

## **Enabling Conditions: Support for Developing Countries**

- "[The COP] recognizes the specific needs and special circumstances of developing country Parties":
  - To reach net zero carbon dioxide emissions by 2050: it is estimated that \$4.3 trillion per year must be invested in clean energy up until 2030, then increasing thereafter to \$5 trillion per year until 2050.

### Enabling Conditions: Sustainable Development

- Linkage of Paris Agreement and the U.N. 2030 Agenda for Sustainable Development (2015)
  - In the Agenda: "Sustainable Development Goals"
- Seventeen goals, including: eradication of poverty; energy access to affordable, reliable, sustainable, modern energy for all; and urgent action to combat climate change and its impacts

# Sustainable Development (continuing)

- In the climate change context: promotion of economic development, consistent with climate mitigation and adaptation
- Concerns that developing countries will replicate the developed countries' history of economic development based on combustion of fossil fuels

#### Enabling Conditions: Sustainable Development (continuing)

Decision, par. 16(a): "Mitigation efforts embedded within the wider development context can increase the pace, depth and breadth of emissions reductions; policies that shift development pathways towards sustainability can broaden the portfolio of available mitigation responses."

### **Enabling Conditions: Protection of Nature**

- The Decision Preamble:
  - -"The importance of ensuring the integrity of all ecosystems, including in forests, the ocean, mountains and the cryosphere, and the protection of biodiversity."

# Protecting Nature (continuing)

- The Decision Preamble:
  - "Urgent need to address the interlinked global crises of climate change and biodiversity loss, as well as the vital importance of protecting, conserving, restoring and sustainably using nature and ecosystems for effective and sustainable climate action"

#### Enabling Conditions: Protecting Nature (continuing)

- The Convention on Biological Diversity (1992)
  - All countries are Parties, except the USA
  - Habitat protection its core goal
  - Targets adopted at COP15 (Montreal, 2022):
    - ■Upgrade of national targets for protected areas (15% of land, 7% of water) to 30% for both by 2030

#### Enabling Conditions: "Just Transitions"

- A term with multiple meanings
- One is in a section of the COP28 Decision entitled "Response measures"
  - "Response measures": implementation steps to address climate change
  - par. 136: "[The COP] recognizes the importance of maximizing the positive and minimizing the negative economic and social impacts of the implementation of response measures"

#### Just Transitions (continuing)

- Decision, par. 140: "[The COP] notes that just transition of the workforce and the creation of decent work and quality jobs, and economic diversification, are key to maximizing the positive and minimizing the negative impacts of response measures
- Par. 141: "[The COP] underscores the social and economic opportunities and challenges that arise from the efforts to achieve the Paris Agreement temperature goal"

#### Greenhouse Gas Emissions in the COP28 Decision

- Starting point: "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming of about 1.1 degrees Celsius" (1.98 degrees Fahrenheit)
  - New in the COP28 Decision

#### Parties Must Step Up Reductions of GHG Emissions

- By 2030, implementation of Parties' current plans would reduce emissions an average of 2% compared with the 2019 emissions level.
- "Significantly greater" emission reductions are required to align with global greenhouse gas emission trajectories in line with the temperature goal of the Paris Agreement.
- The COP recognizes an "urgent need" to address this gap: 43% reductions by 2030 and 60% by 2035.

#### How Will Necessary Emissions Reductions be Made?

- In nature:
  - The Decision calls for:
    - ■Enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases
    - Conserving biodiversity

#### Emissions Reduction in Nature (continuing)

- A need for enhanced support and investment for efforts toward halting and reversing deforestation and forest degradation by 2030
- Preservation and restoration of oceans and coastal ecosystems and the scaling up of ocean-based mitigation action

#### How Will Necessary Emissions Reductions be Made? (continuing)

■ Lifestyle: the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy (recycling) approaches

#### How Will Necessary Emissions Reductions be Made? (continuing)

- In energy systems:
  - The Decision: must be deep, rapid and sustained reductions in greenhouse gas emissions.
  - There must be a combination of measures to decrease deployment of fossil fuels and increase deployment of alternate fuels and technologies

# Decrease Specific Deployments

"Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science"

### Decrease Specific Deployments (continuing)

"Accelerating efforts towards the phase-down of unabated coal power"

"Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030"

### Decrease Specific Deployments (continuing)

"Accelerating the reduction of emissions from road transport"

- "Transitional fuels":
  - "can play a role in facilitating the energy transition while ensuring energy security"

## Decrease Specific Deployments (continuing)

"Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible"

## Background: Two Categories of Energy Subsidies

Production subsidies

Consumer subsidies

### Identifying "inefficient fossil fuel subsidies"

- A Canadian government document:
- "All Initiatives identified as Fossil Fuel Subsidies will be considered as potential Inefficient Fossil Fuel Subsidies unless they meet one or more of the following criteria:
  - Subsidies that enable significant net GHG emissions reductions in alignment with the Paris Climate Agreement

## Inefficient fossil fuel subsidies (continuing)

- Subsidies that support clean energy, clean technology or renewable energy
- Subsidies that provide an essential energy service to a remote community
- Subsidies that support Indigenous Peoples' economic participation in fossil fuel activities
- Subsidies that support abated production processes

# GHG Emissions Reductions (continuing)

■ Via energy efficiency: the Decision calls for doubling the global average annual rate of energy efficiency improvements by 2030

#### GHG Emissions Reductions: Increasing Specific Deployments

- Renewable sources of energy:
  - -Tripling renewable energy capacity globally by 2030
- Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century

# Increasing Specific Deployments (continuing)

- In road transport: development of infrastructure and rapid deployment of zeroand low-emission vehicles
- Accelerating zero- and low-emission technologies, including renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage (particularly in hard-to-abate sectors), and low-carbon hydrogen production

# Week Three Meeting (Feb. 2, 2024);

- The COP28 Decision and Adaptation
- Adaptation: anticipation of adverse effects of climate change; and
  - Steps to prevent or minimize damage from those effects